



KINGDOM OF SAUDI ARABIA
 IMAM MOHAMMAD IBN SAUD ISLAMIC UNIVERSITY
 COLLEGE OF COMPUTER AND INFORMATION SCIENCES
 INFORMATION SYSTEMS DEPARTMENT
 BACHELOR IN INFORMATION SYSTEMS



المملكة العربية السعودية
 جامعة الإمام محمد بن سعود الإسلامية
 كلية علوم الحاسب والمعلومات
 قسم نظم المعلومات
 بكالوريوس نظم المعلومات

SYLLABUS

IS 492: Information Security

PREREQUISITE	CS330- Computer Networks, IS380- Cyber Security	CREDIT HOURS	3
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Instructor: TBA	
Contact information and office hours	
Office No:	TBA
Office Hours:	TBA
E-mail:	TBA

COURSE DESCRIPTION
<p><i>This course aims to provide students with an academic overview of information security covering its main domains. The course provides the foundation for understanding the key issues associated with protecting information using cryptographic algorithms, determining the authentication and authorization techniques for safe access to information, and assigning the features of information security protocols. In addition, the course will provide the student with an overview of the main software flaws and different ways of protections against intruders. Students will be exposed to the spectrum of security activities, methods, and techniques. By the completion of this course, students should appreciate the significance of information security in the IT realm, and be able to demonstrate in-depth knowledge of information security technical key principles and techniques. Upon successful completion of this course, students will have a broad ethical knowledge of the major technical security challenges.</i></p>

COURSE LEARNING OUTCOMES (CLOs)		Aligned SOs
1	Knowledge and Understanding	
1.1	Define the concepts related to advanced information security	1 (I)
1.2	Describe advanced cryptography and its implementation considerations	1 (I)
1.3	Describe the fundamental issues in designing access control models and authentication and security protocols.	1(I)
1.4	List the main characteristics of software flaws and malicious software.	1 (I)
1.5	State information security ethics & laws.	1 (I)
2	Skills :	



2.1	Express the main cryptography algorithms.	2 (I)
2.2	Align information systems planning with business strategy and organizational operations	2 (I)
2.3	Create and maintain a comprehensive security model.	2(I)
2.4	Plan and organize an information systems security development project	2 (P)
3	Values:	
3.1	Function effectively on teams to accomplish a common goal	5 (P)
3.2	Present a topic in a compelling manner	3 (P)

TEACHING Strategies
Lectures Self-learning

List of Topics to be Covered

No	List of Topics	Contact Hours
1	Introduction to Information Security	1+1
2	Basic Cryptography	3
3	Symmetric Key Cryptosystems	3
4	Public Key Cryptosystems	4+2
5	Access Control-Authentication	4+1
6	Access Control-Authorization	4+1
7	Authentication Protocols	4+1
8	Security Protocols	4
9	Software Flaws and Malware	3
10	Information Security Ethics & Laws	3
11	Project Discussion	3
Total		76+6(SL)

TEXT BOOK
<i>Information Security Principles and Practice, 2nd edition, Mark Stamp, Wiley Publications, 2011, ISBN 978-0470626399.</i>

REFERENCES
Information Security: Principles and Practices; Mark S. Merkow, Jim Breithaupt, Published Jun 4, 2014 by Pearson; ISBN-10: 0-7897-5325-1, ISBN-13: 978-0-7897-5325-0
Understanding Cryptography, 1 edition, Christof Paar; Jan Pelzl, Springer, 2010, ISBN 978-3642041006.
Computer Security, 3rd edition, Dieter Gollmann, John Wiley & Sons, 2011, ISBN 978-0470741153.



The Basic of Information Security, Jason Andress, 2014 Elsevier Inc, Second Edition
ISBN-10: 0133898164
ISBN-13: 978-0133898163

Course Assessment Methods			
No	Assessment Method	Due Week	%Total Assessment
1	Quiz	3	10
2	Assignment	9	10
3	Midterm	7	20
4	Project / Lab Exam	12	20
5	Final Exam	13	40